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ABSTRACT

The paper describes how information regarding future trends is collected and made available to educational policy makers. Focusing on educational implications of social and population trends, the paper is based on data derived from use of trend forecasting by educational policy makers in Florida and other southeastern states. The document is presented in two major sections. Section I describes four approaches to synthesizing and generalizing information on the impact of social trends on education. The approaches are: (1) composing exploratory and normative scenarios; (2) constructing cross-impact matrices; (3) extrapolating trend lines of statistical data; and (4) relating trends to educational issues such as financial support, objectives, and methods of evaluating curriculum and educational programs. Section II focuses on ways of helping educational policy makers understand and use forecasts. The author discusses political and bureaucratic unwillingness to make decisions and take actions which are politically unpopular; problems faced by politicians in convincing the public that a pending decision or action is necessary or beneficial; and the need for forecasters to be independent of decision makers. The conclusion is that the growing concern evidenced by educational policy makers for future trends should be matched by efforts to refine forecasting techniques. (DB)

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Forecasting Social Trends as a Basis for Formulating Educational Policy

Arthur J. Lewis
University of Florida

Paper presented at the Conference of World Future Society, Education Section, Houston. Texas, October 21, 1978.

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and Ms. Linda Troup

Forecasting Social Trends as a Basis for Formulating Education Policy

Arthur J. Lewis
University of Florida

A year and a half ago one of our doctoral graduates was selected as principal of a high school in the blueprint stage of construction. The opportunity to head a new school led him to accept this position over other possibilities. The school was never built, however, and probably never will be because high school enrollment declined last year. A future-oriented superintendent and board of education would have known several years ago that declining enrollment in secondary schools was coming and would not have planned for a new high school.

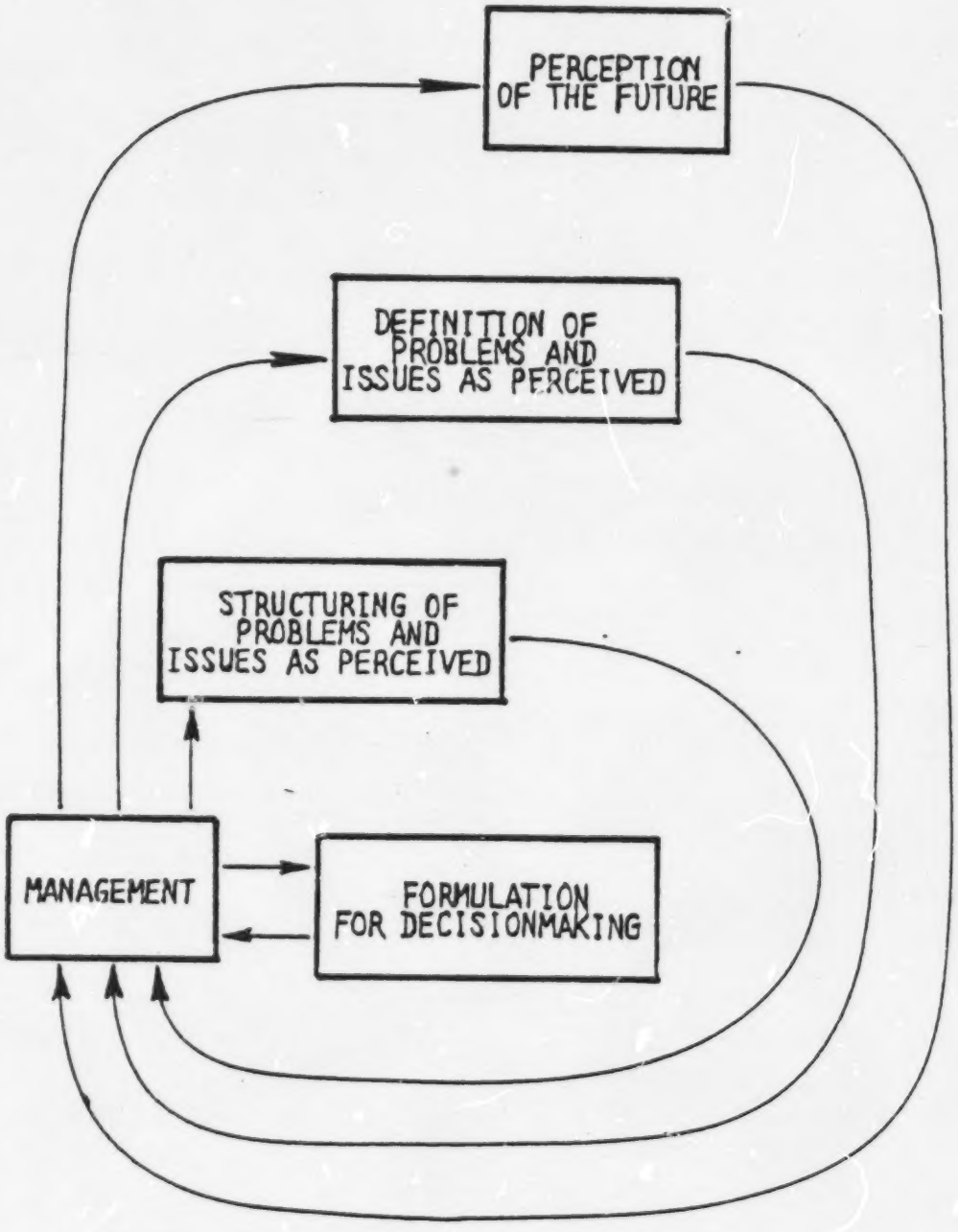
It is obvious that long-range plans need to be guided by forecasts of the future. Equally apparent, as evidenced by our illustration, is the fact that social trends should guide policymakers in making the day-by-day decisions that, over the long-haul, influence our future.

The relationship between social trends and policymaking is shown in Figure 1. This is not a linear model with a sequence of steps. Rather the model shows that decision makers must be continuously aware of possible futures, be clear as to the nature of important problems and issues ahead and be able to structure these problems and issues. This accumulated knowledge enables management to make future-oriented policy decisions. (See Figure 1 on page 2).

Use of this model can be illustrated with the unbuilt high school. The superintendent and board should have known that in September 1977 secondary school enrollment would fall below that of the previous year for the first time in a quarter of a century, and that secondary school enrollment is expected to decline at least until 1986. From this knowledge, the superintendent and staff could have examined the specific implications of this general trend for high schools in the district by relating existing

FIGURE 1

THE FUTURE AND POLICY MAKING


PERCEPTION OF THE FUTURE
DEFINITION OF PROBLEMS AND ISSUES AS PERCEIVED
STRUCTURING OF PROBLEMS AND ISSUES AS PERCEIVED
MANAGEMENT
FORMULATION FOR DECISIONMAKING

Steps in Perceiving, Defining and Structuring Future Situations Prior to the Decision Stage (Adapted from Simmonds 1977, p. 17).

space available to future needs. This knowledge of probable developments in the future could have saved money.

The quality of educational policy decisions can improve with increased use of information on future trends. This paper describes how information regarding future trends is collected and made available to policy decision makers in Florida and other southeastern states.

Collecting and Disseminating Information Regarding Future Trends

Philosopher Alfred North Whitehead (1929) proposed that learners progress through three stages. First is the stage of romance where subject-matter has the vividness of novelty, not dominated by systematic procedures. The second stage is precision and exactness leading to the final stage of generalization--a return to romanticism with the added advantage of classified ideas and relevant techniques (p. 29-30). A group of us at the University of Florida studying the future and education are in the second stage, trying to move to the third.

The first stage, emphasizing romance and novelty, is particularly appealing in studying the future. So much is novel and even romantic that it is difficult to move on. Our work at this stage consisted of reading and abstracting articles related to the future of education. After collecting 250 abstracts, we summarized and synthesized them, but there remained a nagging uncertainty that we hadn't covered all of the bases. If we had read another set of 250 articles, would our summary be different? We felt the need for more precision and exactness in our work.

Precision and exactness are relative terms in future work--more of a goal to aim at than a reality to be achieved. We did, however, want to be certain to consider all, or at least most, of the relevant trends. We shifted our emphasis, therefore, from using articles on education and the future to actively searching for information on social trends. In a world as vast and complex as ours, what social trends should we consider? How were we to be guided in this search?

We started with a learner and a definition of education--a systematic effort to transmit, evoke or acquire knowledge, skills, attitudes or values. Next we considered where within society there were systematic efforts to educate--to transmit, evoke or acquire knowledge, skills, attitudes or values. The school is one obvious setting. So is the home. There are various community organizations that educate--churches and synagogues, camps, museums, libraries, etc. The peer group is a potent force, particularly in shaping attitudes and values. Television also exerts systematic efforts to shape values and attitudes through a bombardment of commercial messages as well as programming. It follows that social trends affecting any of these primary education forces--school, home, community, peer groups and television--will affect the education of learners.

It is important to note that education and schooling are not synonymous. Schooling is but one important educational influence. A consistent use of this comprehensive view of education will enable us to find more effective solutions to our problems. Once it is recognized that there are many educational institutions, it is no longer necessary to assume that schools must solve all of society's educational problems.

Trends in other sectors of society will, in turn, influence the primary educative forces. For example, changes in the world of work will influence: the home, as more mothers work; the school, as vocational programs will need to adapt; the community, as an attempt is made to meet the needs of unemployed; the peer group, if the number of unemployed youth continues to be high; television, in the nature of programs and commercials. Bronfenbrenner (1976) identified a series of elements in society that influence these primary educative forces including: agencies of government, communication, distribution of goods and services, health and welfare, informal social networks, law enforcement, media, neighborhoods, population characteristics, recreation and social life, transportation and world of work. These elements will, in turn, be influenced by cultural, economic, legal, political, scientific and social changes.

Figure 2, an ecological model for education, portrays primary educational influences and their relation to the learner and to society. (See Figure 2 on page 6.)

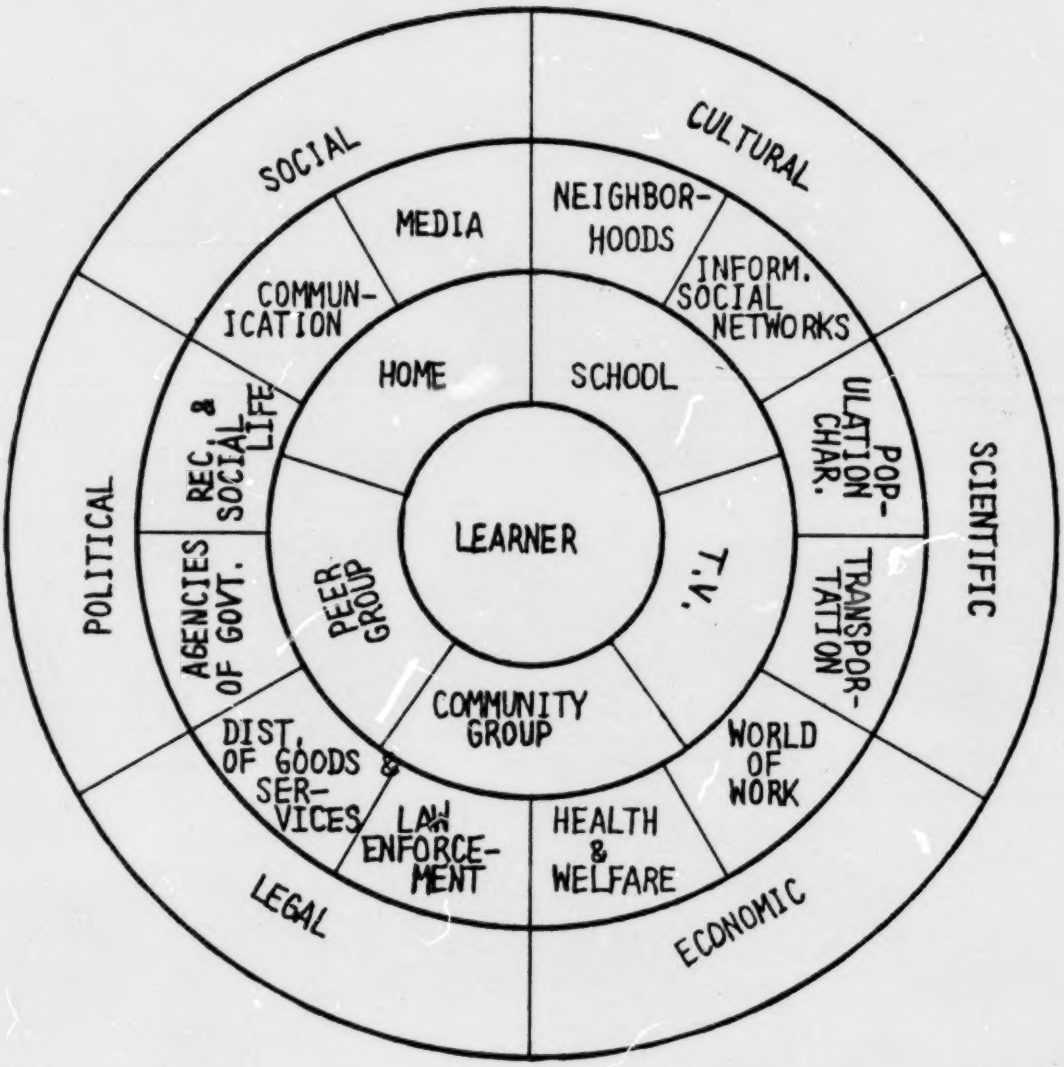
Following this ecology model, we systematically reviewed the literature to identify possible trends in the twelve elements of society that will impact the primary educative forces and made forecasts regarding trends in the five primary educative forces. Forecasts were made in the light of possible cultural, economic, legal, political, scientific and social changes. This material, all 224 pages of it, now in draft form, represents our effort to present an inclusive study. In Whitehead's terms, we are wondering how to move on to the third cycle, the level of generalization. Briefer material with a sharper focus may be of greater value to decision makers.

The greatest problem in attempting to generalize from this material is that everything seems to be related to everything else. The analogy of a fish net is often used to describe a system--when one knot is grasped and lifted the configuration of the whole net is shifted. The analogy holds for forecasting future events, except several knots are being grasped and moved in different directions concurrently. At the stage of generalization, it is not possible to examine a limited segment of human experience in isolation from its complex context. Rather, one must have multiple perspectives on any given phenomenon. Hope Leichter (1978) points out that, "With our present level of knowledge, we should aim not for a single map of the relation of different institutions in society to each other, but rather for a variety of maps that describe and specify a variety of combinations and clusterings" (p. 656-657).

Leichter (1978) suggests that the relationships among different institutions could be studied using the concepts of community, systems, configuration, linkage, resonance and mediation. The relationships can also be studied from the vantage point of the learner. It would be possible, using these approaches, to develop a series of maps. However, the results would be too abstract to benefit the educational policy decision-maker and would no doubt well exceed 224 pages.

FIGURE 2

AN ECOLOGICAL MODEL
FOR EDUCATION



We have used four different approaches to synthesizing and generalizing information on the impact of social trends on education: writing scenarios, constructing cross-impact matrices, extrapolating trend lines and relating trends to issues in education. Brief explanations of the first three approaches are followed with a fuller explanation of the fourth including illustrations.

Writing Scenarios

One way to summarize future trends is to write exploratory and normative scenarios. An exploratory scenario portrays a probable future based on a continuation of existing trends modified by probable events. Writing a good exploratory scenario requires a synthesis of knowledge regarding trends and possible impacting events. In addition to synthesis of knowledge, the normative scenario needs an overlay of values to be achieved in modifying the future we appear to be drifting into, and a dash of creative imagination. A normative scenario portrays a possible alternative future that may be achieved through planning and deliberate actions.

A series of scenarios were written (Lewis, Nelson, Soar, Troup 1977). The best of them have caugnt the attention of decision makers and made good newspaper copy. However, it is difficult to know if they are having any effect on decisions being made. Scenario writing is probably of greatest benefit to the writer as he/she engages in synthesizing information. This may provide a clue: if decision makers were to write scenarios, this might enable them to convert information about the future into knowledge they need for decision making.

Constructing Cross-impact Matrices

Constructing a cross-impact matrix may be recognized as a more precise method of "writing" an exploratory scenario. A cross-impact matrix contains the variables that may influence a future event; for example, socio-economic status of the home will influence reading test scores. These variables are then stated as possible future events. For example, the socio-economic status of families with school age

children will improve. The probability that each such event will occur is then estimated. The influence of the event, if it does occur, on other events and on the impacted event is then estimated. In this instance, the impacted event was that reading test scores for 13 year olds will increase. Through the use of a computer program it is then possible to forecast the probability that the event will occur.

Two years ago we identified ten variables we believed would affect reading test scores in 1981. Through the assistance of a panel of experts and using a modified delphi technique, we developed a cross-impact matrix. The computer run of this matrix assigned a probability of .17 that National Assessment of Education Progress (NAEP) test results for 13 year olds will increase by 1981 (Collazo, Lewis, Thomas 1976). This forecast may have had some impact on decision makers. In any event, they are working hard to prove that we were wrong, and I hope they succeed.

The technique of cross-impact analysis would have maximum value if educational decision makers, informed regarding social trends, were involved in assigning priorities to occurrence of various events. One difficulty in using this technique is the large number of variables associated with events in education.

Extrapolating Trend Lines

Every time we look at a trend line of statistical data we consciously or unconsciously extend that line into the future. We assume that the general configuration of the curve will continue. There are, of course, mathematical procedures that may be used in extrapolating trend lines. We explored the use of extrapolation in preparing forecasts.

Jane Nelson (1977), a member of our project staff, wrote her doctoral dissertation on the projection of social trends using three types of extrapolative techniques: linear regression, curvilinear regression (quadratic and cubic forms) and log-linear regression. Time series data of various social indicators were used; e.g., number of

families in U.S. headed by women expressed as a percentage of total families. Each set of data was divided into thirds; two-thirds of the data points were used to establish the predictive equation. This equation was used to predict the remaining third of the data points. Predicted values were compared with actual values.

Nelson concludes, "Each method is appropriate for use with some indicators but not with others. Measures of best fit such as r^2 and the standard error of estimate are not reliable criteria for the selection of an extrapolative method. A combination of strategies such as graphic representation of original and predicted data, analysis of residuals, and knowledge of the social phenomena being studied may provide guidance as to the most appropriate method for a particular indicator" (p. xii-xiii).

The use of various extrapolative techniques with time series data, including trend impact analysis, should not be ruled out. However, the difficulty of finding reliable time series data on important indicators and the number of variables influencing social trends severely limits the usefulness of this method.

Relating Future Trends to Issues in Education

An approach to generalization of information on social trends that may be more pragmatic than scholarly can be derived from Figure 1. This model indicates that decision makers need to relate information regarding the future to problems and issues. Accordingly, one way to generalize information about future trends is to relate it to issues that confront decision makers.

This approach is being used in the preparation of three papers for the Southeastern Regional Consortium Planning Project. One paper deals with social and economic forecasts and their impact on the future organization and administration of schools. Forecasts of social and economic trends are related to issues associated with such topics as:

- characteristics of students
- financial support for education

·educational personnel

·locus of decision-making

·programs of education

·educational outcomes

A second paper describes the relationship of the curriculum of the future to social and economic forecasts. Issues associated with the following topics are used to focus forecasts:

·What should be the aim of education?

·What will be the characteristics of learners?

·What will be the organization of knowledge?

·What will be the nature of values?

·What are appropriate methods to evaluate the curriculum?

The third paper on teaching and the application of new and future developments in electronic technology includes such developments as: micro-computers, bubble memories, video disks, lasers, fiber optics and satellite to roof-top communication. Three issues are addressed:

·How should future developments in electronic technology affect what is taught?

·How can electronic technology improve effectiveness of education?

·How can electronic technology reduce the cost of education?

Three examples are given illustrating how forecasts of trends may be related to issues.

Financial support for education. Expenditures for educational institutions in the U.S. increased from $25 billion in 1959 to $120 billion in 1975 (The Condition of Education, 1977, p. 154). Much of this increase is due to inflation; however, in the last 10 years, per pupil cost has climbed by 155 percent in the U.S., while the consumer price index has risen 69 percent. The former President of the National

Association of State Boards of Education, R. H. McBride, forecasts, ". . . an additional $24.5 billion will be needed to sustain for the five year period, 1976-81, the level of improvement of educational support achieved in 1964-74" (p. 248). Will these funds be forthcoming?

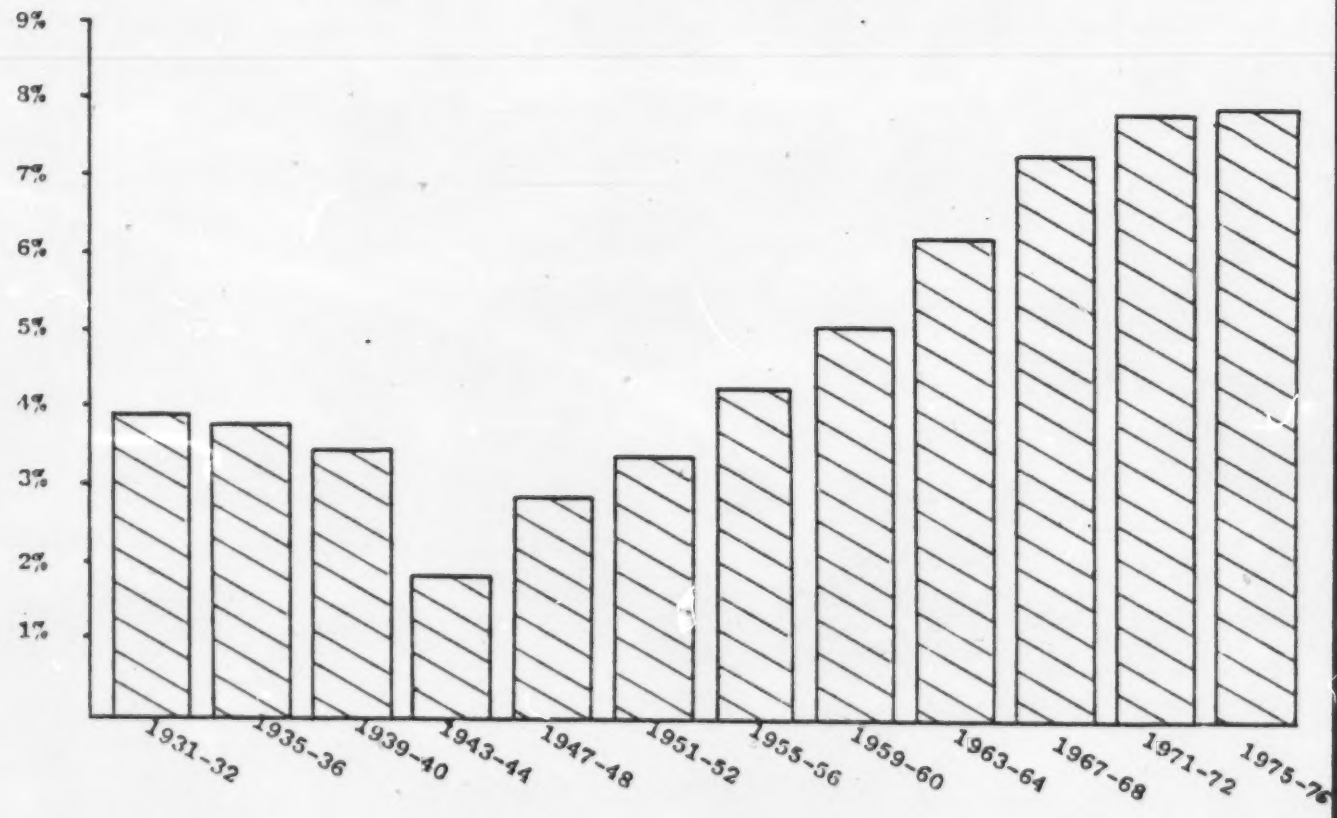
Projections related to energy show a continued decline in the growth of the gross national product. At the same time there will be increased competition from other sectors of the government for funds. The projected growth in the federal payroll from 1974 to 1985 is 34 percent (Florida Employment Directions, 1974-85, p. 16). State growth will not be far behind. Increases are projected for costs for social security, health, welfare and crime control. Competition for education's slice of the tax dollar pie will increase. Will the pie grow larger?

Figure 3 shows the percentage of G.N.P. spent on education in the United States. Thirty years ago, we spent approximately three percent of our G.N.P. on education; now we are spending just under 8 percent. However, the shape of this curve suggests that we may "level off" by spending 8½ - 9 percent of our G.N.P. for education. It would be optimistic to forecast that the additional $24.5 billion needed for education by 1981 proposed by McBride will be available. Indeed, if California's Proposition 13 is a straw in the wind, taxpayers are saying they want to decrease the percentage of G.N.P. going for taxes and for education. Norman Cousins, editor of Saturday Review, points out that education is being marked out as the first casualty of Proposition 13 as "Pent-up prejudices against teachers and teaching are popping out all over" (p. 56). Cousins indicates some of the reasons:

> Education has failed to provide adequate understanding of the centrality of education in a creative society. Schools have somehow failed to get across the biggest truth of all about learning: that its purpose is to unlock the human mind and to develop it into an organ capable of thought--conceptual thought, analytical thought, sequential thought. Such thought is essential not just for the purpose of making a living but for placing a proper value on the enjoyment of living" (p. 56).

Figure 3

Total expenditures for education as a percentage of the gross national product: United States, 1931-32 to 1975-76



Source: NCES Digest of Educational Statistics, 1976 Edition. Page 24.

Educational policymakers need to make day-by-day decisions based on a high probability that there will be no substantial increase in real dollars for education. They should not be mislead by an increase in inflated dollars with reduced purchasing power. The first inclination may be to cut back in programs--eliminate kindergarten, athletics, twelfth grade. However, when future forecasts are viewed in their entirety, it is clear that our society needs more and better education not less and poorer education.

Creative ways need to be developed to give more people a better education by making maximum use of all educational institutions in society through a network of learning systems. A much greater use of human resources, largely volunteers, will also be a part of a new learning society. Another element may well be much greater self-direction on the part of learners as they take advantage of new electronic developments.

What should be the aim of education? Forecasts of future developments have numerous implications for the aims of education. This section illustrates implications in a few areas.

Societies, in order to survive, must provide for social cohesion. One important purpose of education is to provide citizens with the knowledge, skills and attitudes necessary to assure a cohesive society--that is, to be effective citizens. The trend of increasing global interdependence will affect the nature of education needed to be an effective citizen. Through technological developments, particularly communication and transportation, the human race, once scattered around the world in small groups with no contact, is becoming a vast world community--a global village. Looming world problems are converting this concept of a world community from a romantic ideal to a necessity. These problems include international terrorism, the precarious balance between man and the natural resources on which he depends and worldwide pollution with ecological breakdown. Futurists predict that global planning will be

required within the lifetime of middle-aged people.

Education will need to provide the entire population with some general understanding of world problems and a sense of world citizenship. In addition, expert knowledge and skill in communication will be required by a few area specialists and to a lesser degree by the increasing number of other persons with international contacts.

Rapid new discoveries in science and technology also have implications for education of competent citizens. Increasingly, voters are asked to make judgments related to the use of technology. For example, nuclear power plants, offshore oil wells and other controversial environmental issues are cropping up in voting booths with increasing frequency. To vote responsibly on such complex issues, voters should have some knowledge of science and an understanding of the delicate balance between forces in nature. But before focusing all of our attention on preparing "global citizens" who can vote intelligently on science-based issues, it is necessary to recognize that America still has some unfinished business.

The United States has achieved unparalleled strength and discovered a "vision of human potential" that we are still working to fully realize. Education should enable citizens to stand constant and vigilant guard over our freedoms. To do this, education should emphasize our common frame of political values--freedom, equality, justice, popular consent and personal obligation for the common good.

One of the most important functions of education in any society is to prepare individuals to be effective producers. A combination of American education and American industrial know-how has produced the remarkable results of employment for more than 90,000,000 people, an increase of 34,000,000 jobs since 1950. These impressive figures are of relatively little comfort, however, to the approximately 7,000,000 unemployed individuals in our society, many of whom are youth.

A January 1977 report of the Federal Bureau of Labor Statistics shows three

million youths and young adults (ages 16 to 25) looking for work. That is an unemployment rate of 16 percent compared with a rate of 5.7 percent for persons over 25. The idleness rate among black teenagers was approximately double that of white youths, and the official figures did not count many slum dwellers, mostly black, who are so locked into hopelessness that they have become dropouts from the labor market as well as from school.

The future consequences of this unemployment are frightening. Already, according to one sociologist, many unemployed youth have taken up an underworld fringe of existence lucrative enough to kill their interest in low-paid, dead-end jobs that may become available in the "straight" economy. A massive cooperative effort between education and industry appears to be called for to rid our society of that cancerous problem of continued high unemployment of youth.

Looking to future trends affecting education and work, three significant revolutions can be identified: equality revolution, knowledge revolution and value revolution. Although the equality revolution is by no means complete, some giant strides have been made in the past decade. Blacks and other ethnic groups have made gains stimulated by the Civil Rights movement of the 1960's. Women have joined in the demand for equal rights. The number of women in the work force is expected to increase by nearly 12 million by 1990. It is anticipated that whereas 55 percent of the women in the age group 25 to 54 were in the labor force in 1975, 60 to 65 percent will be in the labor force by 1990. Educational programs need to help minority groups and women gain equality in employment.

If the knowledge revolution continues at the present pace, by the time a child born today graduates from college, the amount of knowledge in the world will have increased fourfold. Because of this knowledge revolution, skills and knowledge will become obsolete. It is estimated that in the future skilled workers will have to attend an education institution to be totally retrained at least four times in their

lives. The knowledge revolution is mixing practical work values and a liberal education into a new recipe for success. To a greater degree than ever before, tomorrow's worker will have to become something of a scholar, and scholars will have to learn communication, administration and other practical skills to succeed. The knowledge revolution will affect the types of jobs available. Knowledge workers will become one of the largest vocations as they condense and channel the torrents of new information into newsletters and video tapes and as they process information for computer storage.

Because of a values revolution, the acquisition of material symbols is no longer the primary goal in life for many people. As a result some futurists are forecasting a growing restlessness among employees who are bored, frustrated or disappointed in their careers. There will probably be an increase in the number of persons in respectable, well-paying jobs who will return to school in an effort to change career orientations.

The value revolution coupled with a declining source of raw materials may lead us into a postindustrial era marked by a simpler way of life. Some futurists project a society featuring cottage industries, craft-based economies, limits to economic growth and change, scaling down and decentralization of large institutions. With more emphasis on self-reliance, a mark of status could be to have a home furnished with objects you yourself have constructed.

A number of social trends will affect humans as producers. Clearly, the earlier sharp dichotomy of finishing education and beginning work no longer exists. It will not be possible to educate people for a career and assume that once they enter their career, the need for education stops. In planning programs to prepare people for work, educators need to consider the impact of the equality revolution, the knowledge revolution and the value revolution.

Changes within society will make it necessary for citizens to continue to learn

in order to adapt. Life-long learning requires the basic skills for speaking, listening, reading, writing and computation. Without these tools individuals are cut off from sources of information. Given the electronic age in which we live, some may argue that skills in reading are no longer necessary for life-long learning. It is true that people can and do learn from television and radio. However, a recent study has indicated a sizable social class difference between those with high involvement in print versus television. Psychologists interested in how people learn are theorizing that children whose first learning experience comes from television are not as able to use the full range of their intellectual abilities as those supplied with books earlier in life. Clearly, a failure to learn to read will foreclose many opportunities for life-long learning.

Tremendous strides in computer technology will make notebook size computers available for family and personal use in the 1980's. The potential for learning through the use of computers has barely been tapped. The ability to program and use a computer may join the other basic skills necessary for effective life-long learning in the next decade.

To have the requisite skills is not enough to assure life-long participation in educational programs. An individual also needs to have a positive attitude toward education. Too many students leave school with a feeling of relief that education is over. Many students who drop out before completing high school would prefer not to hear the word education again. What can be done in the schools to avoid innoculating so many youth with this anti-education vaccine? How can individuals who are already "turned-off" on education be turned back on? Schools would appear to play a particularly central role in helping citizens learn the skills and develop the attitudes conducive to life-long learning.

From the outset of this section on social trends affecting the aim of education, the need for a learning network of many educational agencies has been stressed. This

becomes particularly important for life-long learning. Any delivery system for life-long learning needs to be based on the assumption that many resources may be used. Formal educational institutions will not be the principal source of updating activity for some role groups.

What are appropriate methods to evaluate the curriculum? To evaluate means to find the worth of something. Evaluation of the curriculum is to find the worth of the opportunities for learning being provided to citizens. Two steps are involved in evaluation: gathering appropriate data and making value judgments regarding them. Thus a program of evaluation will provide data screened through values as a basis for improving learning opportunities provided.

Evaluation has a powerful influence on the curriculum. The natural desire of teachers and administrators for a positive evaluation has been heightened by criticism of the schools and demands for accountability. Measurable goals drive out non-measurable goals.

The dominant method of evaluation is based on the work of Ralph Tyler (1949). Stated simply, "The process of evaluation is essentially the process of determining to what extent the educational objectives are actually being realized by the program of curriculum and instruction" (pp. 105-106). The model as it has developed is based on assumptions that authority figures pre-specify goals and objectives for the learner, that the achievement of the learner in relation to the goals and objectives be measured, and that the worth of a program be judged in terms of the learner's progress in achieving pre-specified goals and objectives.

The growing trend toward consumerism in our society may challenge the basic assumptions behind our evaluation programs. Triggered by spiraling inflation and a new concern for individual rights, citizens are becoming adamant in their demands for quality products and services. This is evident in schools through demands for relevance and accountability and through law suits because children failed to learn. Such law

suits will probably increase. Consumerism in education grows out of a recognition that poor education is a life-long handicap. It also seems from the feeling that education should help learners achieve their goals, not always someone else's.

Consumerism has implications for ways in which students and their parents are involved in educational planning and evaluation. To what extent should citizens set the goals for education? Because of consumerism the whole process of evaluation may need to be changed. Most systems evaluate the extent to which the teacher's goals have been achieved. The consumerism movement will insist that the total effects of educational programs be evaluated--the unintended consequences as well as the intended. (Consumers are suing Ford Motor Co. because of the unintended consequences of the location and construction of the Pinto's gasoline tank.) Learners and parents will probably insist that they have a role in evaluating educational programs.

Using Forecasts of Social Trends

The quality of educational decisions, whether dealing with immediate concerns or long-range planning, will be improved by a knowledge of probable future social trends. Developing forecasts of social trends is but the first, and possibly easiest task. The more difficult task is to have a decision maker understand and attend to future forecasts. Whether or not our strategy of relating forecasts to issues faced by decision makers will be effective is still to be tested.

Forecasts of social trends place a politician in a difficult situation if they necessitate taking an unpopular action. If the politician's acts are based on forecasts, constituents may be alienated. If the politician does not act on a forecast that later proves correct, the politician's judgment is questioned. In other words, politicians may be damned if they act on forecasts and damned if they don't. Of course, there is one simple solution for any politician: make certain that the implications of any forecast are consistent with the desires of your constituency.

It is precisely for this reason that forecasts and forecasters must have the maximum degree of independence from decision makers and at the same time have their respect and confidence--not any easy relationship to establish and maintain.

Bureaucrats, faced with immediate crises, discount the future beyond about three months. Politicians discount the future beyond the next election. In the past, the youth of our country were the only constituency for the future and their voices were seldom heard in decision-making councils. Today there is a growing concern for the future and education as evidenced by this conference and the attendance of policy decision makers. If we can provide these interested citizens with the best possible forecasts, in a form they can use, they can help us to move toward a future we want.

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